



FIG. 1

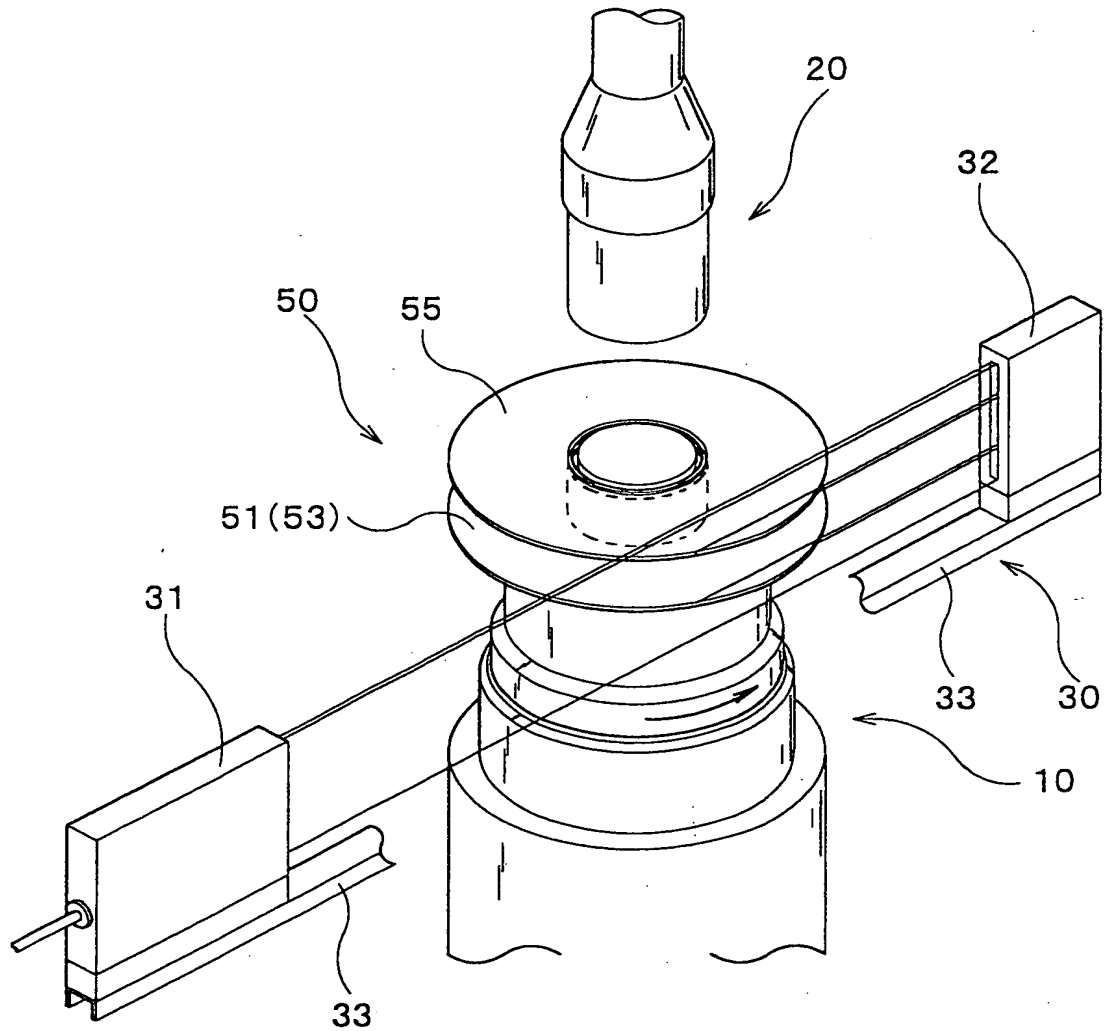




FIG.2

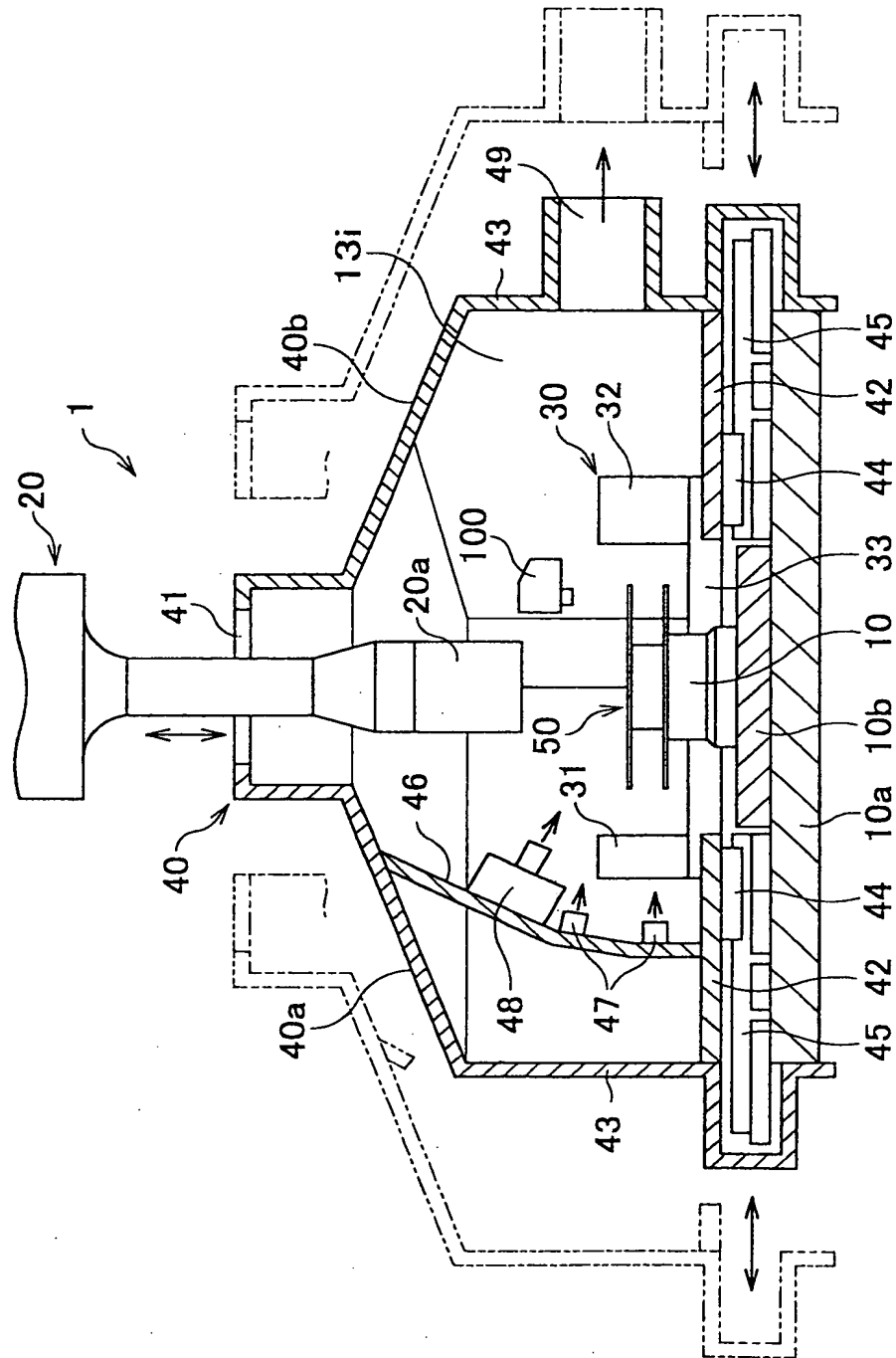




FIG.3

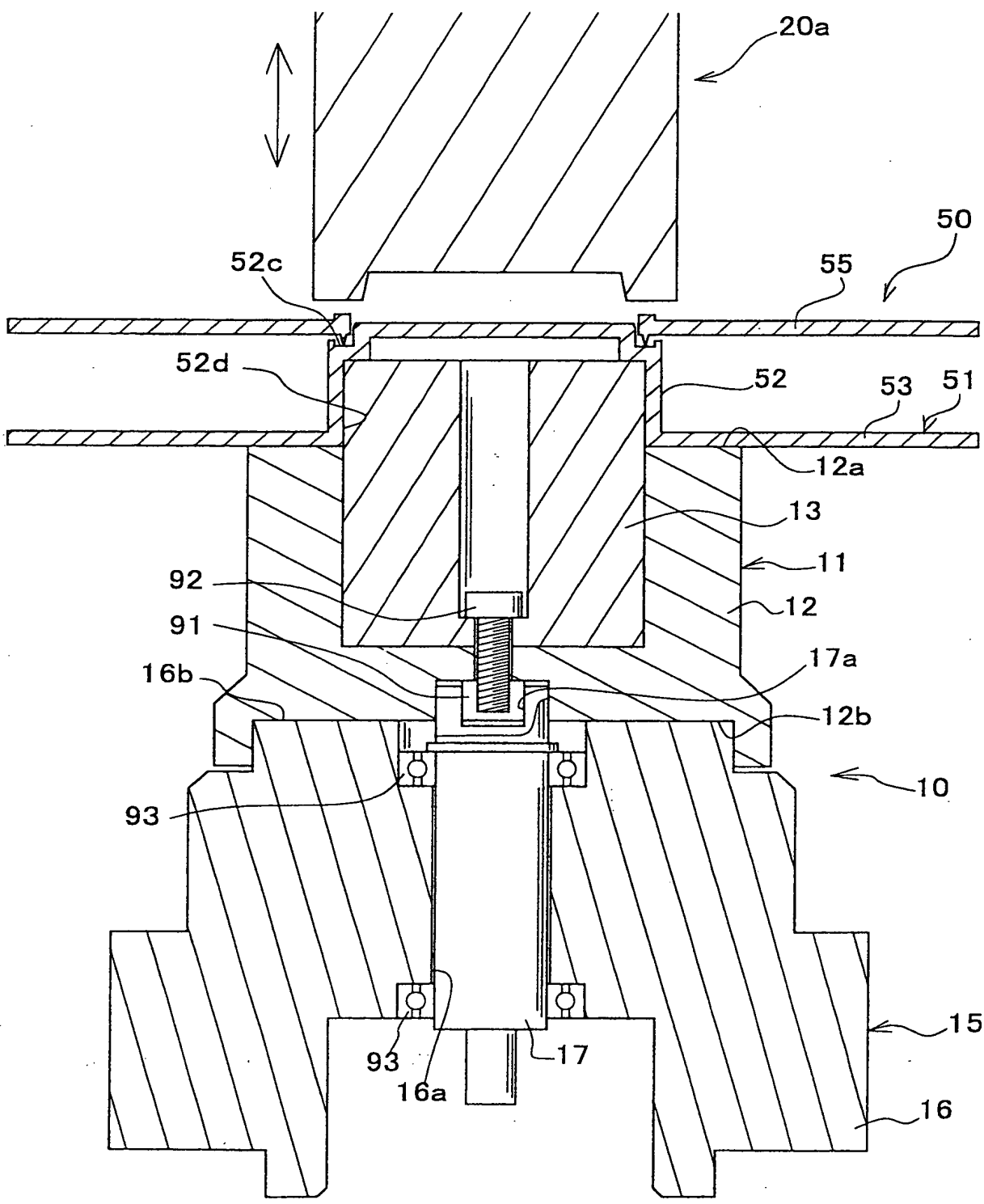
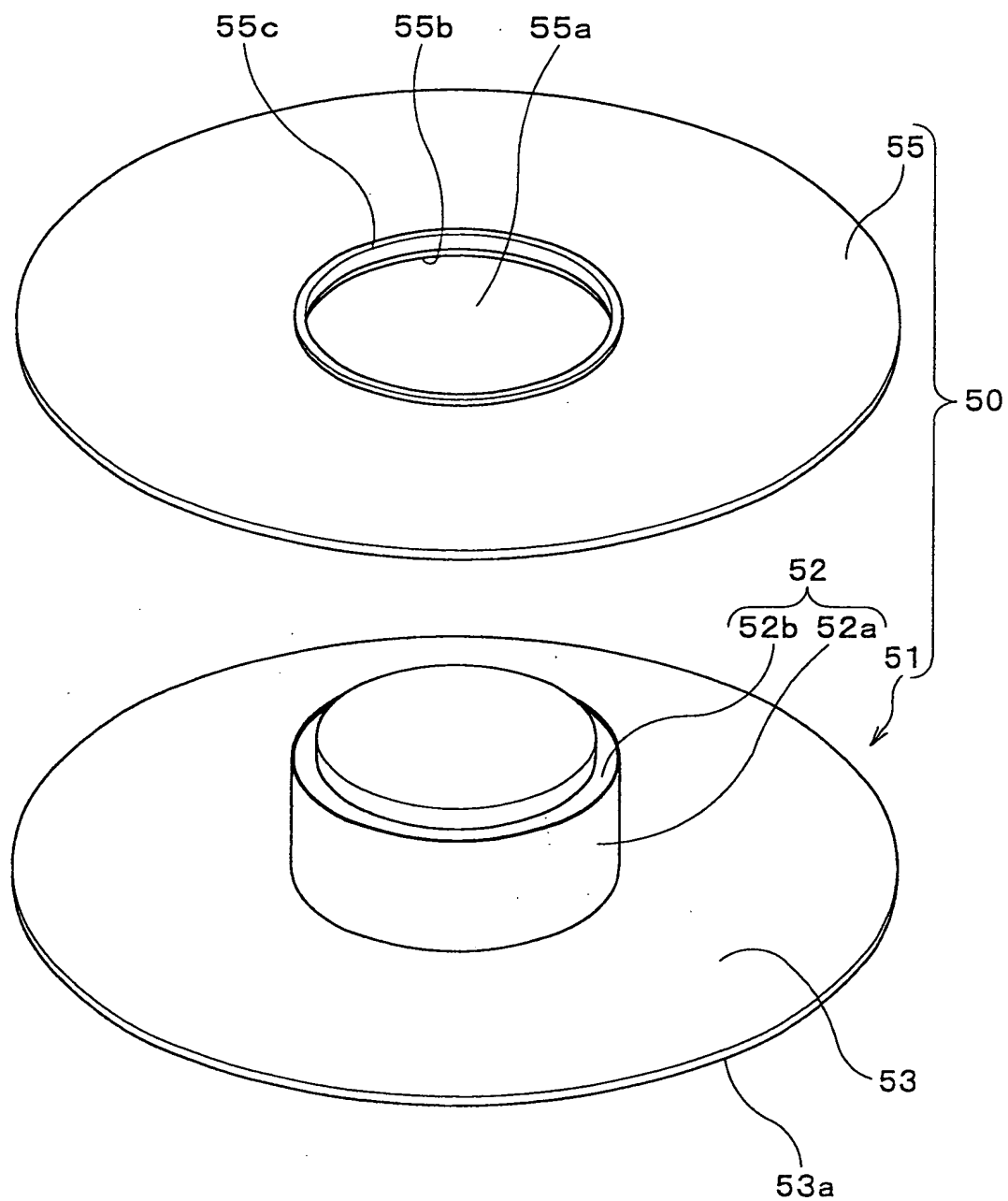




FIG.4





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ULTRASONIC-WELDING APPARTUS, OPTIAL
SENSOR AND ROTATION SENSOR FOR THE
ULTRASONIC-WELDING APPARATUS

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FIG.5

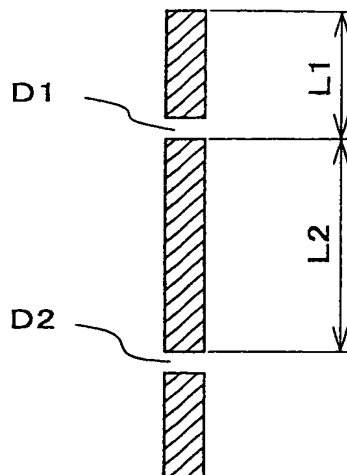


FIG. 6

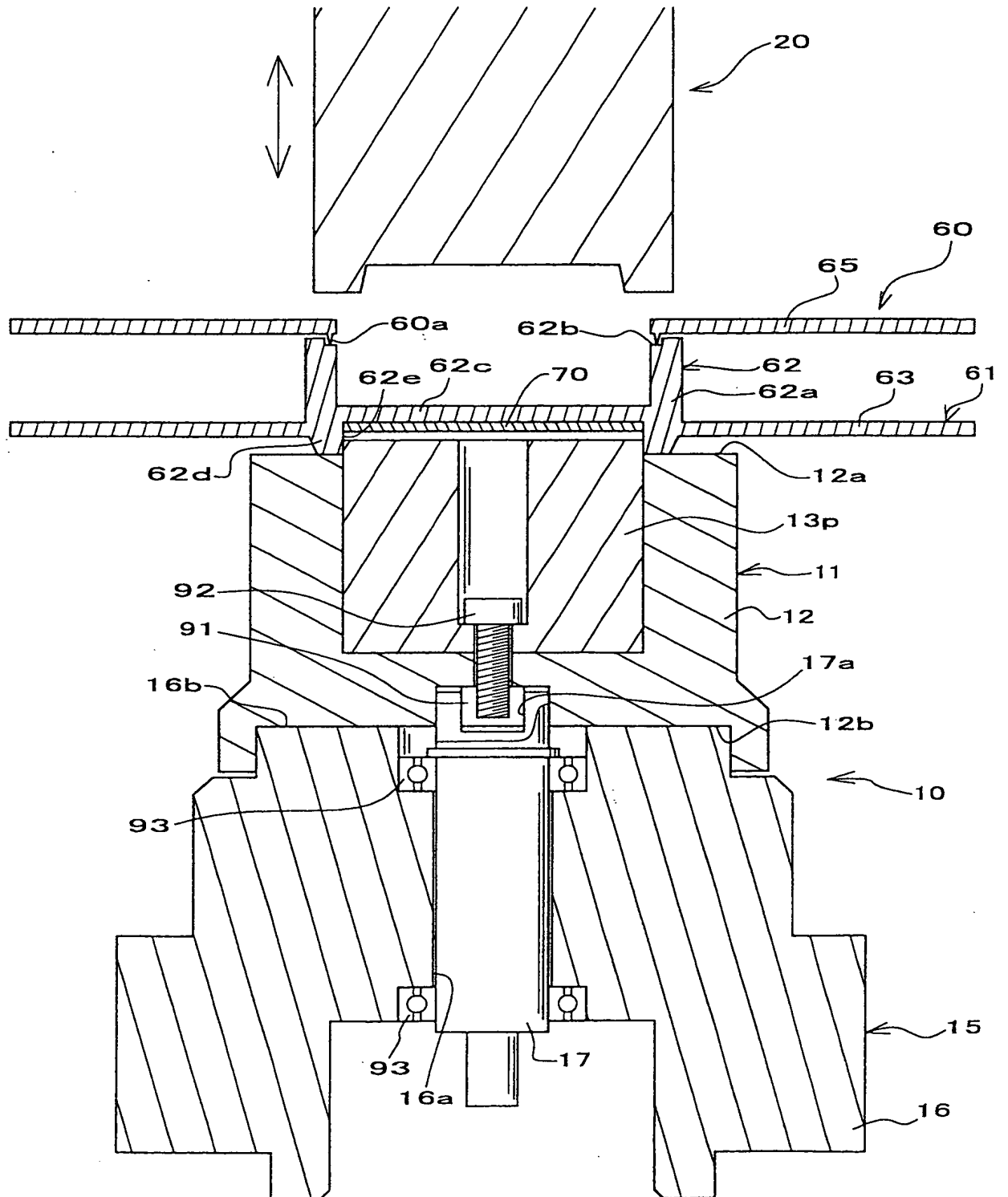


FIG. 7

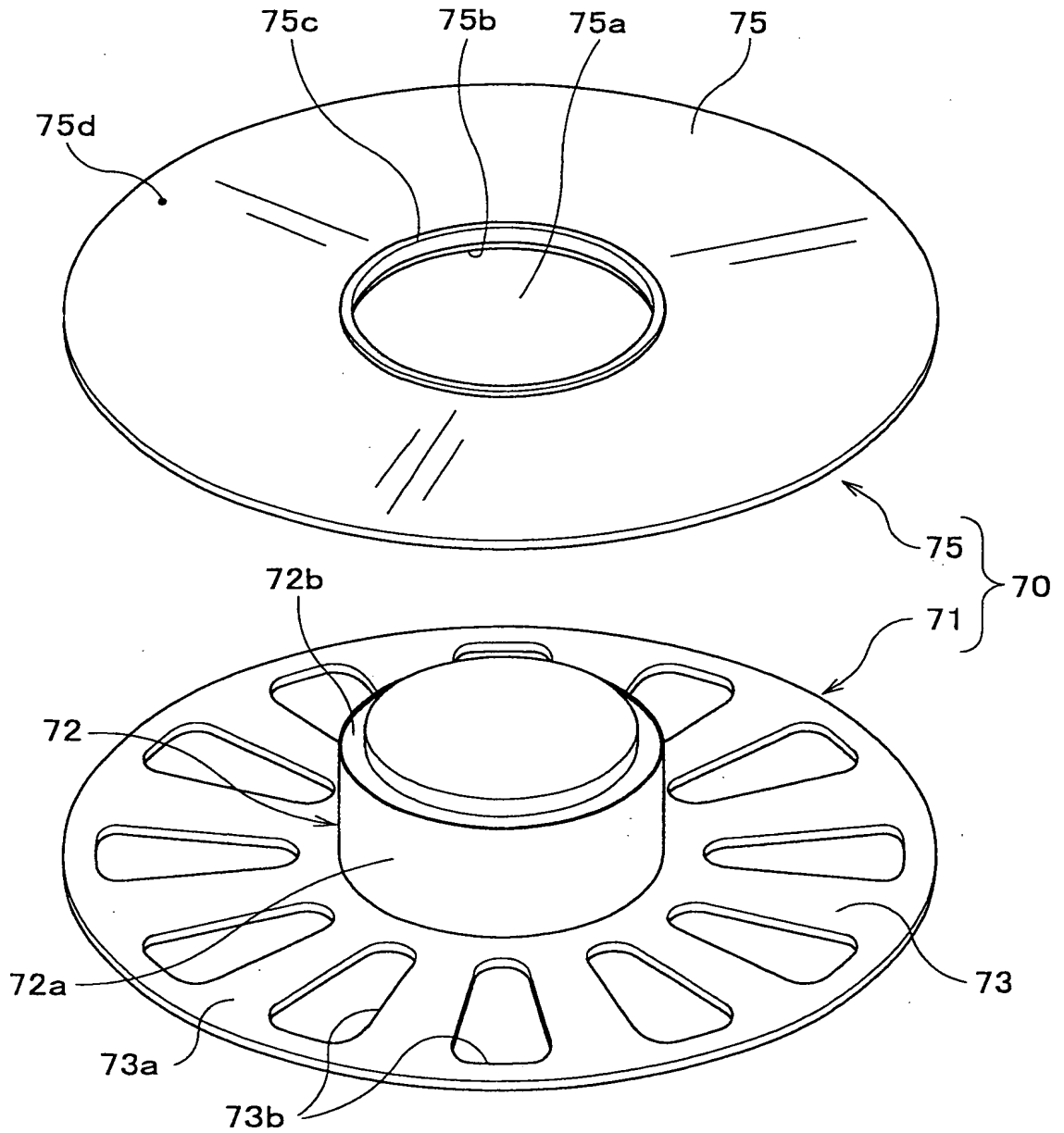


FIG.8

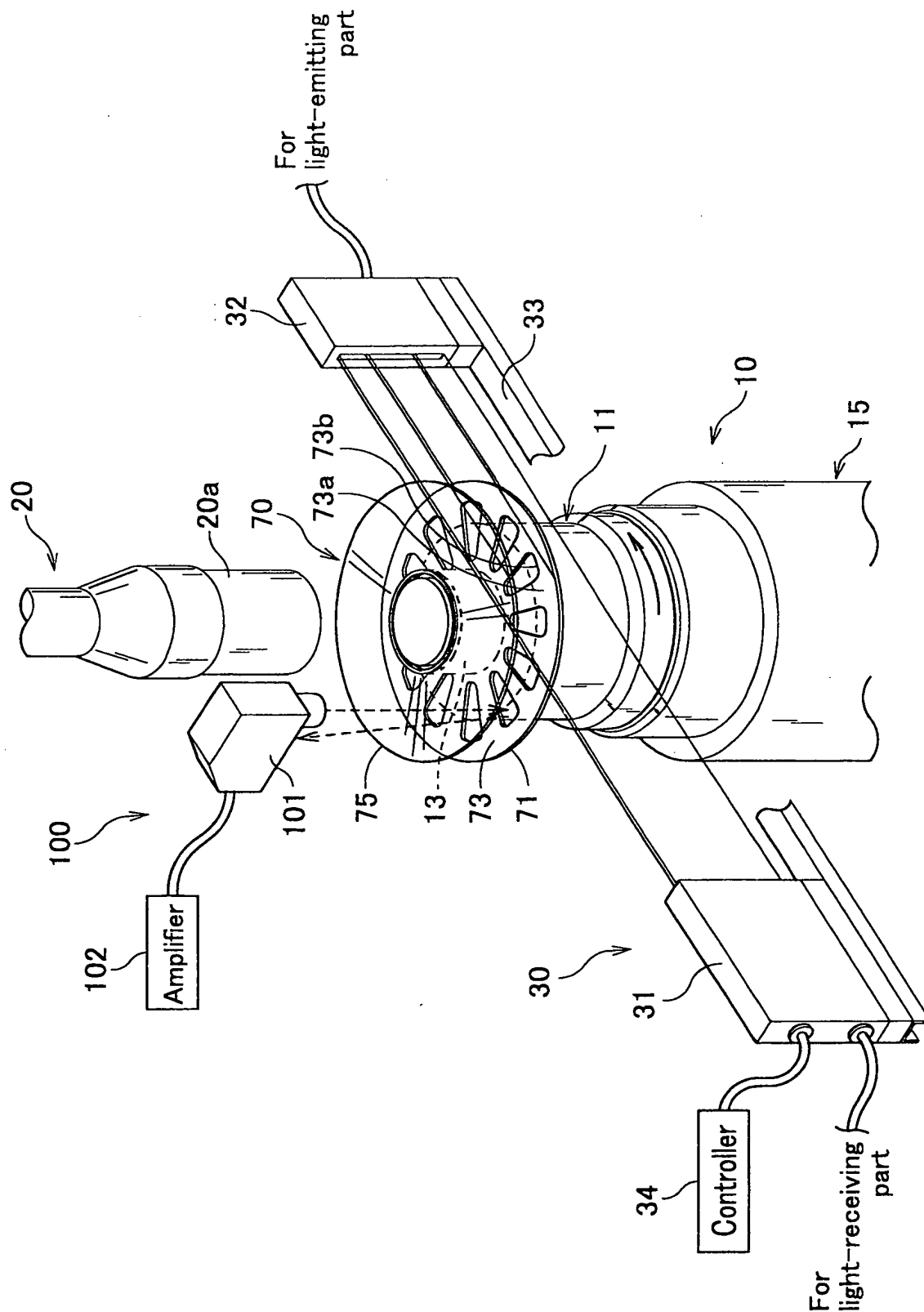




FIG.10A

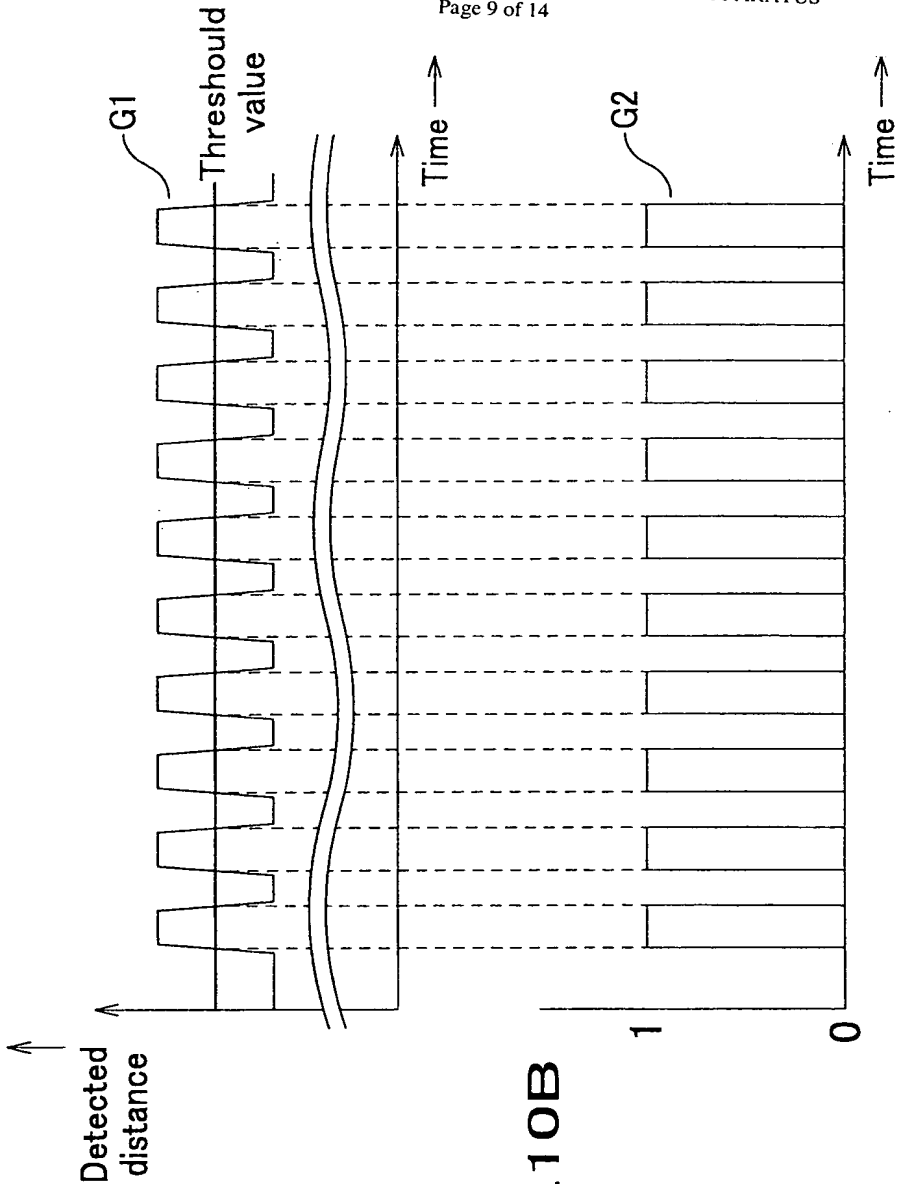


FIG.9

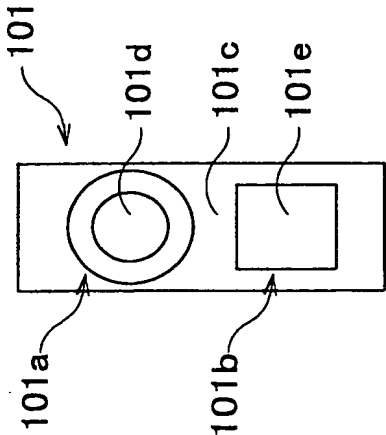


FIG.10B



FIG. 11

FIG. 12A

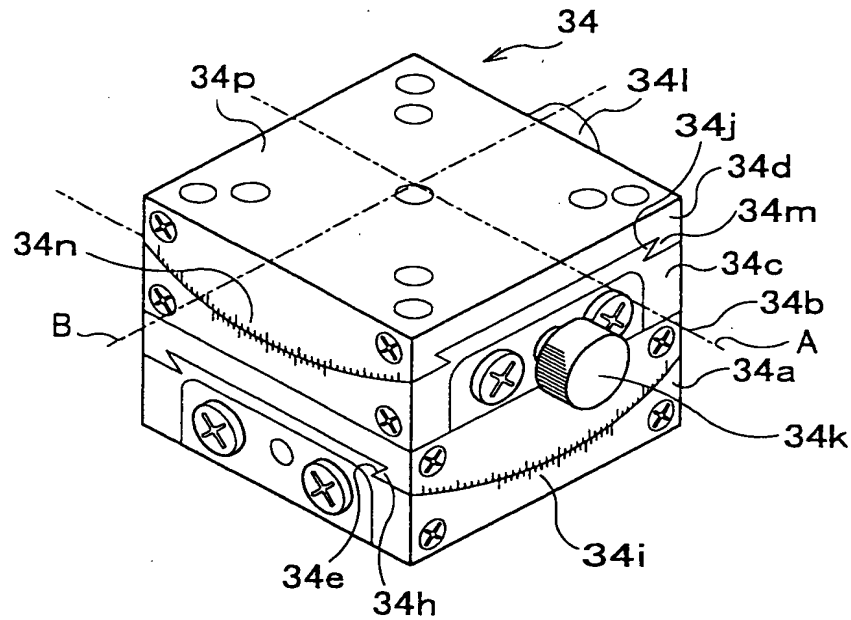


FIG. 12B

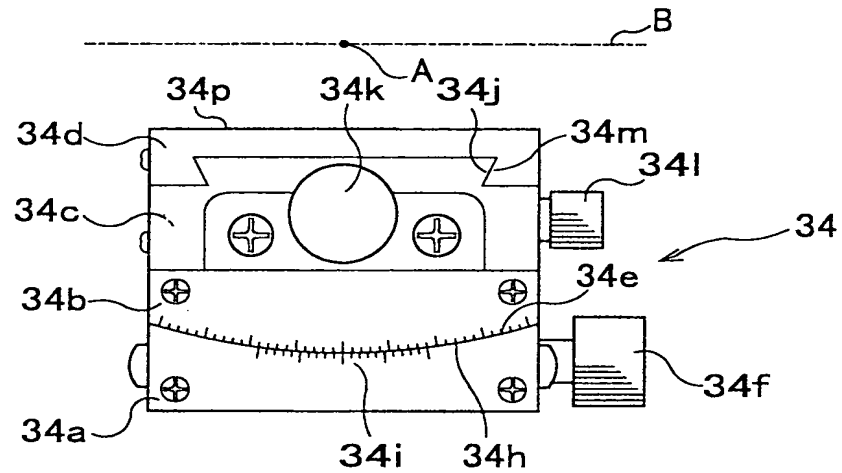


FIG. 12C

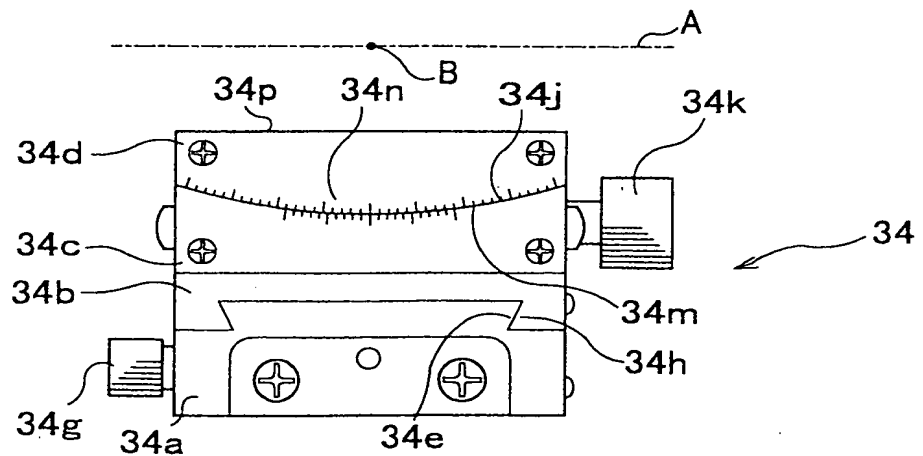


FIG. 13

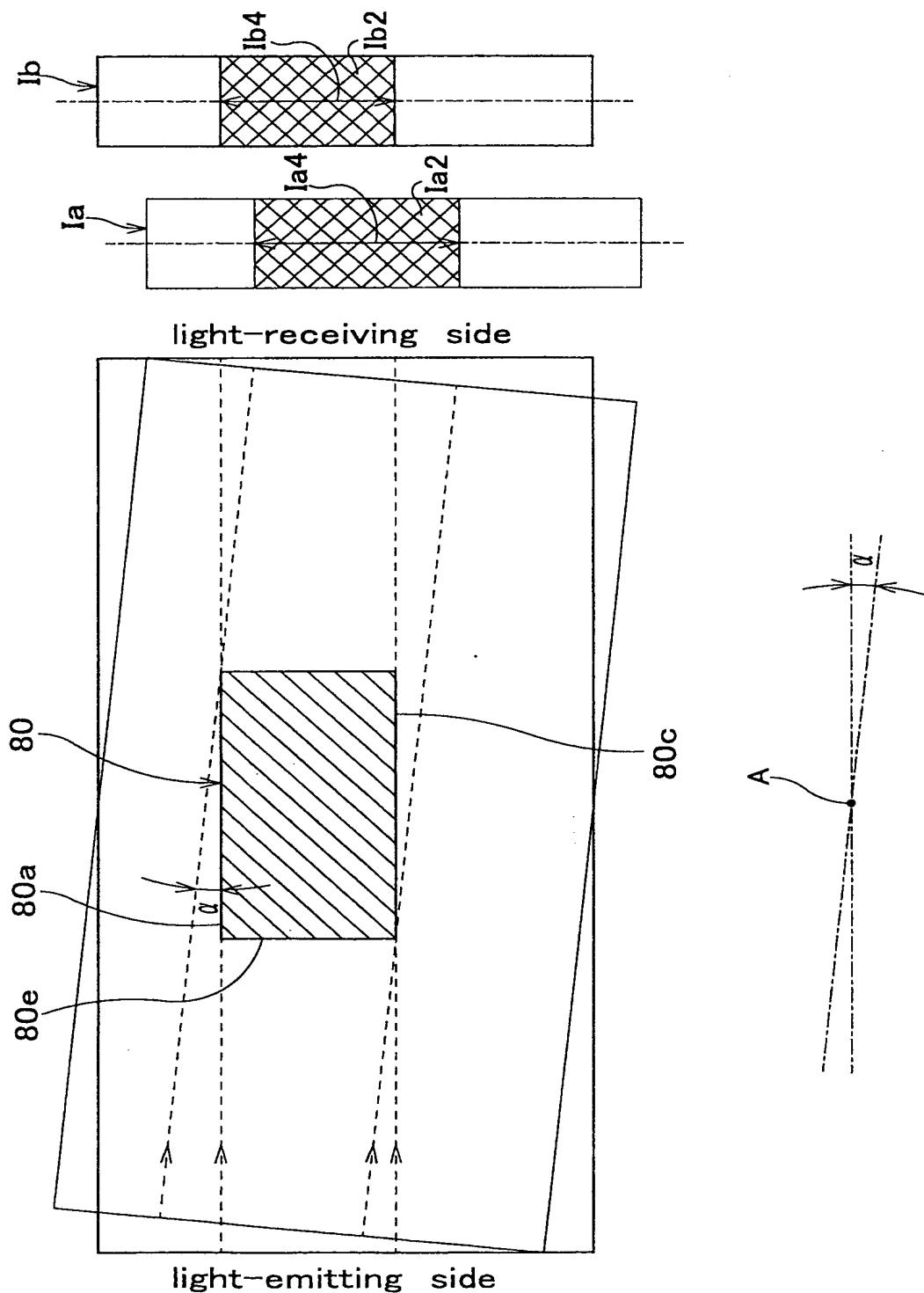




FIG. 14

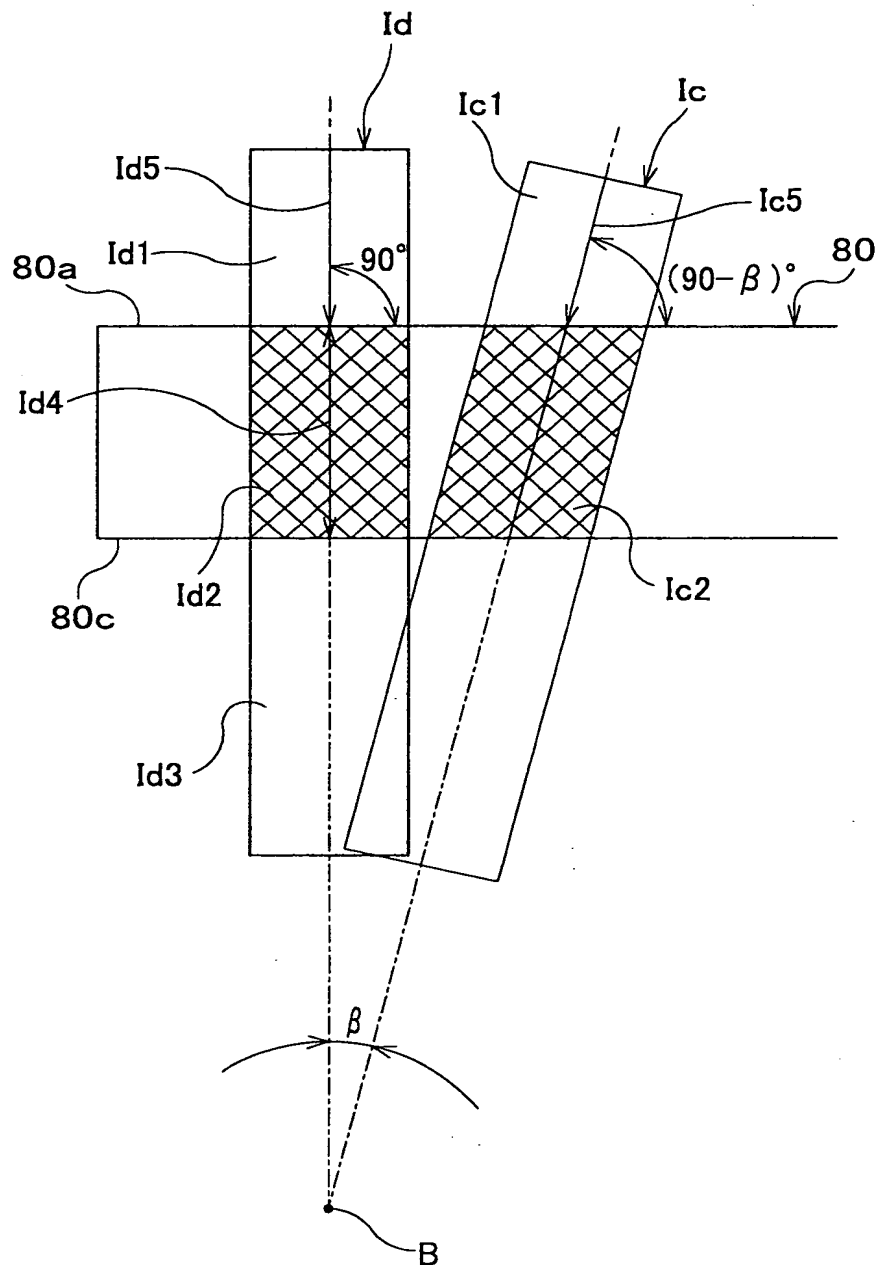


FIG. 15

